

What is claimed is:

1. A micro fluidic device capable of controlling a flow time of micro fluid by using a capillary phenomenon,
5 comprising:

a flow channel for flowing fluid, the flow channel being formed between a top substrate and a bottom substrate or between a top substrate, a bottom substrate, and a middle substrate;

10 a flow blocking surface for stopping a flow of the fluid in the flow channel temporarily; and

a hump for delaying the flow formed in the line of continuity with the flow blocking surface.

15 2. The micro fluidic device as recited in claim 1, wherein a width and a height of the flow blocking surface are adjusted based on kinds of the top, bottom, middle substrates and fluid in order to stop flowing of the fluid at the flow blocking surface temporarily.

20 3. The micro fluidic device as recited in claim 1, wherein the flow of the fluid is adjusted by controlling a length of the hump for delaying the flow, a flow delay angle between a proceeding direction of the flow channel and the
25 hump for delaying the flow, and an aspect ratio (width:height) of the flow blocking surface, based on kinds of the top, bottom, middle substrates and fluid.

4. The micro fluidic device as recited in claim 1,
wherein more than two micro fluidic units are connected
sequentially, the micro fluidic units including the flow
5 blocking surface and the hump for delaying the flow.

5. A micro fluidic device capable of controlling a
flow time of micro fluid by using a capillary phenomenon,
comprising:

10 a first flow channel for flowing a first fluid and a
second flow channel for flowing a second fluid, the first and
second flow channels being formed between a top substrate and
a bottom substrate or between a top substrate, a bottom
substrate and a middle substrate;

15 a first flow blocking surface and a second flow blocking
surface, each connected to the first flow channel and the
second flow channel; and

a hump for delaying the flow, the hump being formed in a
line of continuity with the first and second flow blocking
20 surfaces.

6. The micro fluidic device as recited in claim 5,
wherein, a flow delay angle between a proceeding direction of
the flow channel and the hump for delaying the flow, an aspect
25 ratio (width:height) of the flow blocking surface, and a
length of the hump for delaying the flow are controlled based
on kinds of the top, bottom, middle substrates and fluids so

that one fluid that has arrived at the flow blocking surface first stops flowing temporarily until the other fluid arrives, among the fluids flown through the first flow channel and the second flow channel.

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7. The micro fluidic device as recited in claim 5, wherein a flow delay angle between a proceeding direction of the flow channel and the hump for delaying the flow, an aspect ratio (width:height) of the flow blocking surface, and a
10 length of the hump for delaying the flow are controlled based on kinds of the top, bottom, middle substrates and fluids so that one fluid that has arrived at the flow blocking surface first stops flowing temporarily and then passes through the flow blocking surface after a predetermined time, even if the
15 other fluid does not arrive, among the fluids flown through the first flow channel and the second flow channel.

8. The micro fluidic device as recited in claim 5, wherein a plurality of fluidic units are connected in parallel
20 or in serial, the fluidic units including the first flow blocking surface and the second flow blocking surface, and the hump for delaying the flow.